

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

COOPERATIVE EXTENSION WORK IN AGRICULTURE
AND HOME ECONOMICS.

U. S. Department of Agriculture
and State Agricultural Colleges
cooperating.

States Relations Service,
Office of Extension Work, South,
Farmers' Cooperative Dem. Work.
Washington, D.C.

EMERGENCY USE OF LIME TO INCREASE CROP PRODUCTION.

Lime may be used to special advantage this year.

It is best used on soils well supplied with organic matter.

It puts soils in good condition and makes their fertilizing constituents more available. Place orders and get a supply before the spring rush.

Many suggestions for the extended use of lime are current for the purpose of speeding up crop production this year. This is sound doctrine when the lime is used understandingly and it may be done with particular advantage this year, but so many unqualified statements have appeared that it seems advisable to call attention to certain factors concerning the use of lime.

HOW
LIME
AIDS
PRO-
DUC-
TION

It should be borne in mind that lime is not a fertilizer in the commonly accepted use of the term, that is it does not directly supply any potash, phosphoric acid, or nitrogen. It is added to soils for the purpose of correcting acid conditions and improving the physical conditions of heavy soils; it also influences favorably the decomposition of the organic matter in the soil and in some cases it may make available to a slight extent, insoluble forms of potash and other minerals. Thus it aids in increasing crop yields, particularly if there is a good supply of organic matter in the soil. If the organic content and mineral elements are low, lime may still increase the crop yield for the first year, but in the years following, the supply of organic matter

1920-1921
1921-1922
1922-1923
1923-1924
1924-1925
1925-1926
1926-1927
1927-1928
1928-1929
1929-1930
1930-1931
1931-1932
1932-1933
1933-1934
1934-1935
1935-1936
1936-1937
1937-1938
1938-1939
1939-1940
1940-1941
1941-1942
1942-1943
1943-1944
1944-1945
1945-1946
1946-1947
1947-1948
1948-1949
1949-1950
1950-1951
1951-1952
1952-1953
1953-1954
1954-1955
1955-1956
1956-1957
1957-1958
1958-1959
1959-1960
1960-1961
1961-1962
1962-1963
1963-1964
1964-1965
1965-1966
1966-1967
1967-1968
1968-1969
1969-1970
1970-1971
1971-1972
1972-1973
1973-1974
1974-1975
1975-1976
1976-1977
1977-1978
1978-1979
1979-1980
1980-1981
1981-1982
1982-1983
1983-1984
1984-1985
1985-1986
1986-1987
1987-1988
1988-1989
1989-1990
1990-1991
1991-1992
1992-1993
1993-1994
1994-1995
1995-1996
1996-1997
1997-1998
1998-1999
1999-2000
2000-2001
2001-2002
2002-2003
2003-2004
2004-2005
2005-2006
2006-2007
2007-2008
2008-2009
2009-2010
2010-2011
2011-2012
2012-2013
2013-2014
2014-2015
2015-2016
2016-2017
2017-2018
2018-2019
2019-2020
2020-2021
2021-2022
2022-2023
2023-2024
2024-2025
2025-2026
2026-2027
2027-2028
2028-2029
2029-2030
2030-2031
2031-2032
2032-2033
2033-2034
2034-2035
2035-2036
2036-2037
2037-2038
2038-2039
2039-2040
2040-2041
2041-2042
2042-2043
2043-2044
2044-2045
2045-2046
2046-2047
2047-2048
2048-2049
2049-2050
2050-2051
2051-2052
2052-2053
2053-2054
2054-2055
2055-2056
2056-2057
2057-2058
2058-2059
2059-2060
2060-2061
2061-2062
2062-2063
2063-2064
2064-2065
2065-2066
2066-2067
2067-2068
2068-2069
2069-2070
2070-2071
2071-2072
2072-2073
2073-2074
2074-2075
2075-2076
2076-2077
2077-2078
2078-2079
2079-2080
2080-2081
2081-2082
2082-2083
2083-2084
2084-2085
2085-2086
2086-2087
2087-2088
2088-2089
2089-2090
2090-2091
2091-2092
2092-2093
2093-2094
2094-2095
2095-2096
2096-2097
2097-2098
2098-2099
2099-20100

and of minerals will need to be provided for or the land will become less productive. While lime cannot take the place of either fertilizer or good soil management, it should be used as generally as possible this year in connection with the other conditions necessary for large crop yields.

**WHEN TO
APPLY LIME**

In the northern states ground limestone and burned lime may be applied during the fall and winter, except on slopes subject to washing, thus lessening spring labor. In the South hydrated lime should never be applied until spring on account of the copious winter rains and in most cases the other forms of lime are probably best applied just before planting. Even in the North, spring is the best time to apply the hydrated form of lime.

**HAUL LIME
IN WINTER**

The most important thing north or south is to get the lime hauled to the farm during the fall or winter and before the rush of spring work begins. Then the lime can be applied to best advantage in any form at the proper time after plowing, giving it a shallow working-in before planting. In the Northeastern States where the spring season is short it is especially important that lime be hauled this winter owing to the necessary great hurry of getting crops in on time. In some cases where there is a local supply of limestone, but a shortage of labor for getting enough of it out, it may be practicable for a few farmers to combine and furnish labor at the quarries to secure a sufficient supply.

**LIME
SUPPLY**

At present the agricultural lime situation is somewhat as follows: Some lime manufacturers will probably be forced to curtail their production or perhaps cease production altogether, because of the inability to obtain coal and because of shortage of labor. We believe, however, that so far as supply is concerned, there will be

ample lime production for all agricultural purposes. In fact, there has been such a falling off in the demand for lime for building purposes that the larger lime manufacturers have been making efforts to stimulate the agricultural use of burned lime, aiming to increase this use of lime to the point where it would take care of that formerly used in the building trade. There has, moreover, been an increased production of ground limestone and unless coal and labor shortage should still further interfere with this production, we have no reason to believe that there will not be lime enough for the usual agricultural demand.

The difficulty, however, the farmer will meet in obtaining lime when he wants it, will we believe, be due almost wholly to car shortage. To meet this difficulty, we believe the following recommendations should be made:

ORDER LIME
EARLY

Farmers should be encouraged to order lime as far in advance of their requirements as possible. The Department recently issued through the Office of Information in the News Letter a recommendation to this effect. Of course, it will require the same number of cars to transport any given quantity of lime whenever it is shipped, but certainly spreading this shipment over as long a period as possible will tend to lessen the congestion.

USE A CON-
CENTRATED
FORM

Use as concentrated material as possible. Ordinary burned lime usually sold in barrels or in bulk is the most concentrated form in which lime material can be bought. The objections to the use of this material are that it cannot be stored nor kept any length of time without slacking, it is in an inconvenient form to handle, and is usually purchased for immediate use. Furthermore, in many localities the cost of this material

is considerably greater than the equivalent of calcium oxide in other forms such as ground limestone. Hydrated lime comes next to burned lime in concentration. It is usually marketed in fifty pound sacks. It can be stored and kept indefinitely and, where the price is not out of proportion to other forms, it is probably the form to be recommended, where car shortage is under consideration. Ground limestone is being effectively used and it is usually shipped in bulk and carries about half its weight in calcium oxide. In calcium oxide equivalent four parts of ground limestone is equal to three parts of hydrated lime or two parts of burned lime.

USE LOCAL
SOURCES

Encourage so far as possible the utilization of local limestone deposits either for grinding or burning. This is already being done in many places and no doubt the practice could be very widely extended. However, it involves, in the case of grinding, the purchase and delivery of grinding machinery which may be difficult to accomplish, and in the case of local burning, it means the purchase and delivery of fuel unless there is local fuel available. Wherever fuel, either wood or coal, is available, however, together with a local supply of limestone, every effort should be put forth to make use of this limestone in the present emergency.

Oyster shells, if available, may be ground and used with advantage, and if marl of good quality can be had from nearby beds it may pay to use it.

ORDER
AT ONCE

It is so important to have the lime ready for use when spring opens that it should be ordered at once, and hauled during the winter. Then if used on fields in a good state of fertility, or even on poorer fields where organic matter can be supplied through stable manure, decaying sods, or green manure, it will aid materially in enlarging crop yields this year.

